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SQUIRE, SANDERS & DEMPSEY L.L.P.
14TH FLOOR
8000 TOWERS CRESCENT
TYSONS CORNER, VA 22182

EXAMINER	
PATEL, NIMESH	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/528,763	SPIRITO, MAURIZIO
	Examiner	Art Unit
	Nimesh Patel	2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 July 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detail Office Action

Response to arguments

1. Applicant's arguments filed Jul. 09, 2007 have been fully considered but they are not persuasive.

The applicant's argument,

"Fitch '092 does not describe or suggest applying one of a plurality of available methods in a step of calculating a region around the estimated location of the terminal", on page 13, lines 7 – 11.

The examiner respectfully disagrees,

"Fitch discloses, receiving first and second inputs form first and second LFEs, storing location information based on the inputs in the memory, receiving a location request regarding a wireless station from a wireless location application, **selectively** retrieving the location information form memory and outputting a response on the location request to wireless location application.

The first and second LFEs preferably may employ different location finding technologies, e.g. GPS, AOA, TDOA and cell/sector technologies (Fitch '092, column 2, lines 43 – 54).

Here, selectively retrieving the location information, reads on the claimed feature, applying one of a plurality of available methods".

The applicant's argument,

"there is no disclosure or suggestion in Fitch '092 of a plurality of available methods", on page 13, lines 18- 19.

The examiner respectfully disagrees,

"Fitch discloses, the first and second LFEs preferably may employ different location finding technologies, e.g. GPS, AOA, TDOA and cell/sector technologies (Fitch '092, column 2, lines 52 – 54)". Also, as this is claim rejection – 35 USC 102(b), there is NO NEED for suggestion or motivation.

The applicant's argument,

"there is no suggestion or motivation to modify Fitch '392 to apply a plurality of methods to the calculation of an uncertainty region associated with an estimated location", on page 14, lines 9 – 11.

The examiner respectfully disagrees,

"Fitch discloses, AOA, TDOA, GPS are various methods to find the location of a wireless station (Fitch, '392 - Fig. 3, column 7, lines 66 – 67)". Also, as this is claim rejection – 35 USC 102(b), there is NO NEED for suggestion or motivation.

The applicant's argument,

"Larson works out the middle of the estimated location, then uses this estimated central location to work out which location measurement unit are closest to that middle point", on page 15, lines 6 – 7.

The examiner respectfully disagrees,

"Larson discloses, determine center of POSSIBLE MS location area, reads on the claimed feature, estimating a location of the mobile terminal in claim 1 (Larson, Fig. 6/61, column 4, lines 34 – 37).

At step 62, a desired number of LMUs positioned most favorably relative to the calculated center point are selected to perform the desired mobile station location positioning operation, reads on the claimed feature, applying one of a plurality of available methods (Larson, column 4, lines 37 – 43)".

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Claims Rejection – 35 U.S.C 102(b)

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 5, 7 – 9, 11 – 30 are rejected under 35 U.S.C. 102(b) as anticipated by Fitch US Patent: US 6,321,092 B1 Nov. 20, 2001.

Regarding claim 1, which claims, "estimating a location of the mobile terminal", Fitch discloses, multiple LFE inputs, form one or more LFEs, to be used to allow for wireless station tracking and reduced location uncertainty. The stored location information preferably includes at least location information and corresponding time information for wireless stations, and may further include location uncertainty information, travel speed and direction information (ABSTRACT, Figs. 1, 2, column 2, lines 37 – 57). Here, the location uncertainty information, is the claimed "estimating a location of the mobile terminal".

Further claimed feature, "applying one of a plurality of available methods to calculate a region around the estimated location in which the terminal could be

located", Fitch discloses, Multiple Location Finding - LFE equipment inputs are used to enhance the location information. The LFS 116 can receive input information at varying time intervals of varying accuracies and in various formats, and can provide standardized outputs to the application 118. The first and second LFEs preferably may employ different location findings, e.g. GPS, AOA, TDOA and cell/sector technologies Multiple inputs may also be co-processed for enhanced accuracy. A number of different location finding technologies are depicted in Figs. 3A – 3E (ABSTRACT, Figs. 1, 2, 3A – 3E, column 2, line 42 – column 3, line 47, column 5, line 18 - column 7, line 30,
column 7, line 42 – column 8, line 22, column 8, line 56 – column 9, line 16, column 9, line 56 – column 10, line 18, column 10, line 58 – column 11, line 8).

Regarding claim 2, which claims, "the step of estimating a location of the mobile terminal is performed using multiple sources of information", Fitch discloses, the first and second LFEs preferably may employ different location findings, e.g. GPS, AOA, TDOA and cell/sector technologies (Figs. 2, 3A – 3D, column 2, lines 52 – 54), as in claim 1 above. The LFE determines location information based on two or more cell sites, a reading from one of the cell sites may be used in conjunction with other location, e.g. cell sector information, to make a location determination (column 3, lines 42 – 47).

Regarding claim 3, which claims, "the communication network comprises multiple cells and each source of information comes from a respective one of the multiple cells", Fitch discloses, in the case of LFEs that determine location based on readings obtained relative to two or more cell sites, a reading from one of the cell sites may be used in conjunction with other location, e.g. cell sector information, to make a location determination (column 3, lines 42 – 47), as in claim 2 above.

Regarding claim 4, which claims, "the mobile terminal is served by multiple cells of the network simultaneously and each source of information comes from a respective one of the multiple cells", Fitch discloses, in the case of LFEs that determine location based on readings obtained relative to two or more cell sites, a reading from one of the cell sites may be used in conjunction with other location, e.g. cell sector information, to make a location determination (column 3, lines 42 – 47), as in claim 3 above. Here, as the mobile location information is obtained by two or more cell sites, and reading from one cell sites is used in conjunction with other sites, it indirectly shows that the mobile is being served by multiple cells at the same time.

Regarding claim 5, which claims, "the step of estimating a location of the mobile terminal comprises the steps of selecting and applying a preferred method for estimating the location from a number of available methods", Fitch discloses, the

velocity facility 216, multiple-input facility 217 and tracking facility 218 may use the raw information from the LFEs 208. 204 and 206 to the LFCsof 208, 220 and 212 in place of, or in addition to the LFC outputs. The multi-input processing facility 217 may use a hyperbola definition from a TDOA system in combination with an angle from an AOA system (or other combination of partial LFE outputs) if such combination yields an improved location accuracy or otherwise provides a suitable location determination. Similarly, it may be preferred to use the raw data for velocity or tracking calculations as such data is mathematically closer to the moving wireless station and may more accurately reflect station movement (column 10, lines 44 –58).

A wireless location applications interface 224 allows wireless location applications 226, 228 and 230 to selectively access information stored in the LC 220 or prompt one or more of LFEs 202, 204 and/or 206 to initiate a location determination (Figs. 1 and 7).

Regarding claim 7, which claims, "an algorithm using information from one cell of the network, an algorithm using information from multiple cells of the network, and a numerical method using information from multiple cells of the network", Fitch discloses, the velocity facility 216, multiple-input facility 217 and tracking facility 218 may use the raw information from the LFEs 208. 204 and 206 to the LFCs of 208, 220 and 212 in place of, or in addition to the LFC outputs. The multi-input processing facility 217 may use a hyperbola definition from a TDOA

system in combination with an angle from an AOA system (or other combination of partial LFE outputs) if such combination yields an improved location accuracy or otherwise provides a suitable location determination. Similarly, it may be preferred to use the raw data for velocity or tracking calculations as such data is mathematically closer to the moving wireless station and may more accurately reflect station movement (column 10, lines 44 –58), as in claim 5 above.

A wireless location applications interface 224 allows wireless location applications 226, 228 and 230 to selectively access information stored in the LC 220 or prompt one or more of LFEs 202, 204 and/or 206 to initiate a location determination (Figs. 1 and 7), as in claim 5 above.

Regarding claim 8, which claims, "the preferred method can be specified by setting a variable", Fitch discloses, the velocity facility 216, multiple-input facility 217 and tracking facility 218 may use the raw information from the LFEs 208. 204 and 206 to the LFCsof 208, 220 and 212 in place of, or in addition to the LFC outputs. The multi-input processing facility 217 may use a hyperbola definition from a TDOA system in combination with an angle from an AOA system (or other combination of partial LFE outputs) if such combination yields an improved location accuracy or otherwise provides a suitable location determination. Similarly, it may be preferred to use the raw data for velocity or tracking calculations as such data is mathematically closer to the moving wireless station

and may more accurately reflect station movement (column 10, lines 44 –58), as in claim 5 above.

A wireless location applications interface 224 allows wireless location applications 226, 228 and 230 to **selectively** access information stored in the LC 220 or **prompt one or more of** LFEs 202, 204 and/or 206 to initiate a location determination (Figs. 1 and 7), as in claim 5 above.

The Wireless Location Interface – WLI 224 allows the applications to include specification with a location request one or more parameters: timeliness, accuracy, confidence level, most recent available, most accurate, one time or ongoing monitoring of a mobile station etc. (column 11, lines 9 – 31).

Regarding claim 9, which claims, "the step of calculating a region around the estimated location comprises the steps of selecting and applying a preferred method for calculating the region from the plurality of available methods", Fitch discloses, Multiple Location Finding - LFE equipment inputs are used to enhance the location information. The LFS 116 can receive input information at varying time intervals of varying accuracies and in various formats, and can provide standardized outputs to the application 118. The first and second LFEs preferably may employ different location findings, e.g. GPS, AOA, TDOA and cell/sector technologies Multiple inputs may also be co-processed for enhanced accuracy. A number of different location finding technologies are depicted in

Figs. 3A – 3E (ABSTRACT, Figs. 1, 2, 3A – 3E, column 2, line 42 – column 3, line 47, column 5, line 18 - column 7, line 30,
column 7, line 42 – column 8, line 22, column 8, line 56 – column 9, line 16, column 9, line 56 – column 10, line 18, column 10, line 58 – column 11, line 8), as in claim 1 above.

Regarding claim 11, which claims, "the available methods for calculating the region include: an ellipse algorithm, a circle algorithm, an arc algorithm, and a polygon algorithm", Fitch discloses, determining location information into standardized location information, as geographical location coordinates and a region of uncertainty. The uncertainty region may be of any shape – e.g. polygonal, depending on the nature of the LFEs employed. For circular region an uncertainty is radius, for two dimensional location coordinates – longitude and longitude with an uncertainty radius applied relative to the location coordinates. The standard format may allow for altitude coordinates, non-circular regions and other parameters (Figs. 3A – 3E, and column 7, line 63 through column 8, line 8).

Regarding claim 12, which claims, "the methods include use of a parameter to calculate the region such that the probability of the mobile's exact location being in that region equals the parameter", Fitch discloses, Multiple Location Finding - LFE equipment inputs are used to enhance the location information. The LFS 116 can receive input information at varying time intervals of varying accuracies

and in various formats, and can provide standardized outputs to the application 118. The first and second LFEs preferably may employ different location findings, e.g. GPS, AOA, TDOA and cell/sector technologies Multiple inputs may also be co-processed for enhanced accuracy. A number of different location finding technologies are depicted in Figs. 3A – 3E (ABSTRACT, Figs. 1, 2, 3A – 3E, column 2, line 42 – column 3, line 47, column 5, line 18 - column 7, line 30, column 7, line 42 – column 8, line 22, column 8, line 56 – column 9, line 16, column 9, line 56 – column 10, line 18, column 10, line 58 – column 11, line 8), as in claim 1 above.

Regarding claim 13, which claims, "the steps of selecting and applying a preferred method for estimating the location from a number of available methods, and the selected method for calculating the region together result in a number of shapes of region in which the mobile terminal could be located, the shape being dependent on the selected method for calculating the region", Fitch discloses, Multiple Location Finding - LFE equipment inputs are used to enhance the location information. The LFS 116 can receive input information at varying time intervals of varying accuracies and in various formats, and can provide standardized outputs to the application 118. The first and second LFEs preferably may employ different location findings, e.g. GPS, AOA, TDOA and cell/sector technologies Multiple inputs may also be co-processed for enhanced accuracy. A number of different location finding technologies are depicted in

Figs. 3A – 3E (ABSTRACT, Figs. 1, 2, 3A – 3E, column 2, line 42 – column 3, line 47, column 5, line 18 - column 7, line 30,

column 7, line 42 – column 8, line 22, column 8, line 56 – column 9, line 16, column 9, line 56 – column 10, line 18, column 10, line 58 – column 11, line 8), as in claim 1 above.

Fitch also discloses, determining location information into standardized location information, as geographical location coordinates and a region of uncertainty. The uncertainty region may be of any shape – e.g. polygonal, depending on the nature of the LFEs employed. For circular region an uncertainty is radius, for two dimensional location coordinates – longitude and longitude with an uncertainty radius applied relative to the location coordinates. The standard format may allow for altitude coordinates, non-circular regions and other parameters (Figs. 3A – 3E, and column 7, line 63 through column 8, line 8), as in claim 11 above.

Regarding claim 14, which claims, "the step of selecting and applying a preferred method for estimating the location from a number of available methods, and applying a rule that specifies which of the possible methods for estimating the location is used together with what available methods for calculating the region", Fitch discloses, Multiple Location Finding - LFE equipment inputs are used to enhance the location information. The LFS 116 can receive input information at varying time intervals of varying accuracies and in various formats, and can provide standardized outputs to the application 118. The first and

second LFEs preferably may employ different location findings, e.g. GPS, AOA, TDOA and cell/sector technologies Multiple inputs may also be co-processed for enhanced accuracy. A number of different location finding technologies are depicted in Figs. 3A – 3E (ABSTRACT, Figs. 1, 2, 3A – 3E, column 2, line 42 – column 3, line 47, column 5, line 18 - column 7, line 30, column 7, line 42 – column 8, line 22, column 8, line 56 – column 9, line 16, column 9, line 56 – column 10, line 18, column 10, line 58 – column 11, line 8), as in claim 1 above.

Fitch also discloses, determining location information into standardized location information, as geographical location coordinates and a region of uncertainty. The uncertainty region may be of any shape – e.g. polygonal, depending on the nature of the LFEs employed. For circular region an uncertainty is radius, for two dimensional location coordinates – longitude and longitude with an uncertainty radius applied relative to the location coordinates. The standard format may allow for altitude coordinates, non-circular regions and other parameters (Figs. 3A – 3E, and column 7, line 63 through column 8, line 8), as in claim 11 above.

Regarding claim 15, which claims, “the step of estimating a location comprises the step of modeling a cell of the network”, Fitch discloses, Multiple Location Finding - LFE equipment inputs are used to enhance the location information. The LFS 116 can receive input information at varying time intervals of varying accuracies and in various formats, and can provide standardized outputs to the

application 118. The first and second LFEs preferably may employ different location findings, e.g. GPS, AOA, TDOA and cell/sector technologies Multiple inputs may also be co-processed for enhanced accuracy. A number of different location finding technologies are depicted in Figs. 3A – 3E (ABSTRACT, Figs. 1, 2, 3A – 3E, column 2, line 42 – column 3, line 47,
column 5, line 18 - column 7, line 30, column 7, line 42 – column 8, line 22, column 8, line 56 – column 9, line 16, column 9, line 56 – column 10, line 18, column 10, line 58 – column 11, line 8), as in claim 1 above.
The examiner interprets that the system is finding the location of the wireless device, which teaches, the wireless device is within the wireless network, which has cells, base stations, MSCs etc., which reads on the claimed feature "modellling[SIC] a cell of the network".

Regarding claim 16, which claims, "the step of calculating a region around the estimated location in which the mobile terminal could be located comprises the step of modeling a cell of network", Fitch discloses, Multiple Location Finding - LFE equipment inputs are used to enhance the location information. The LFS 116 can receive input information at varying time intervals of varying accuracies and in various formats, and can provide standardized outputs to the application 118. The first and second LFEs preferably may employ different location findings, e.g. GPS, AOA, TDOA and cell/sector technologies Multiple inputs may also be co-processed for enhanced accuracy. A number of different location finding

technologies are depicted in Figs. 3A – 3E (ABSTRACT, Figs. 1, 2, 3A – 3E, column 2, line 42 – column 3, line 47, column 5, line 18 - column 7, line 30, column 7, line 42 – column 8, line 22, column 8, line 56 – column 9, line 16, column 9, line 56 – column 10, line 18, column 10, line 58 – column 11, line 8), as in claim 1 above, along with the rejections for claim 11 above.

The examiner interprets that the system is finding the location of the wireless device, which teaches, the wireless device is within the wireless network, which has cells, base stations, MSCs etc., which reads on the claimed feature "modellling[SIC] a cell of the network", as in claim 15 above.

Regarding claim 17, which is essentially similar to claim 1 above.

The examiner interprets, finding the location of the mobile terminal in communications network, as in claim 1 above. The network having MSC, base stations, and the cells, teaches the claimed feature, "the service area containing a number of cells including a cell in which the mobile terminal is located".

Regarding claim 18, which is essentially similar to claim 1 above.

The examiner interprets, finding the location of the mobile terminal in communications network, as in claim 1 above. The network having MSC, base stations, and the cells, teaches the claimed feature, "the service area is represented by the geographical region served by the cells in the service area".

Regarding claim 19, which is essentially similar to claim 11 above, and is rejected on the same ground.

Regarding claim 20, which is essentially similar to claim 1 above, and is rejected on the same ground.

Regarding claim 21, which is essentially similar to claim 1 above, and is rejected on the same ground.

Regarding claim 22, which is essentially similar to claim 11 above, and is rejected on the same ground.

Regarding claim 23, which is essentially similar to claim 1 above, and is rejected on the same ground.

Regarding claim 24, which is essentially similar to claim 11 above, and is rejected on the same ground.

Regarding claim 25, which is essentially similar to claim 1 above, and is rejected on the same ground.

Regarding claim 26, which is essentially similar to claim 1 above, and is rejected on the same ground.

A number of different location finding technologies are depicted in Figs. 3A – 3E (ABSTRACT, Figs. 1, 2, 3A – 3E,
column 2, line 42 – column 3, line 47, column 5, line 18 - column 7, line 30,
column 7, line 42 – column 8, line 22, column 8, line 56 – column 9, line 16,
column 9, line 56 – column 10, line 18, column 10, line 58 – column 11, line 8),
as in claim 1 above.

Regarding claim 27, which is essentially similar to claim 1 above, and is rejected on the same ground.

Regarding claim 28, which is essentially similar to claim 1 above, and is rejected on the same ground.

Regarding claim 29, which is essentially similar to claim 1 above, and is rejected on the same ground.

Regarding claim 30, which is essentially similar to claim 1 above, and is rejected on the same ground.

3. Claims 1, 6 and 10 are rejected under 35 U.S.C. 102(b) as anticipated by Fitch US Patent: US 6,212,392 B1 Apr. 3, 2001.

Regarding claim 1, which claims, "estimating a location of the mobile terminal", Fitch (US 6,212,392) discloses, the method for determining if the location of a wireless communication device is within a specified area (ABSTRACT).

Further claimed feature, "applying one of a plurality of available methods to calculate a region around the estimated location in which the terminal could be located", Fitch(US 6,212,392) discloses, the area of interest is defined using quadtree that represent the area of interest. By iterative comparison of the location of the location associated with the wireless station to the locations associated with a node at each level of the quadtree, a determination can be made as to whether or not the location associated with the wireless station is within the area of interest (ABSTRACT, all the Figs. and
column 1, line 65 – column 2, line 24,
column 7, line 36 – column 8, line 17, column 8, lines 42 – 64).

Regarding claim 6, which claims, "if the selected method for estimating the location is unsuccessful, the method sequentially selecting and applying one or more others of the available methods until a selected method is successfully applied", Fitch(US 6,212,392) discloses, using quadtree representation of the

area of interest and determining the location of wireless station by iterative comparison of the location of the location associated with the wireless station (ABSTRACT, all the Figs. and column 1, line 65 – column 2, line 24, column 7, line 36 – column 8, line 17, column 8, lines 42 – 64), as in claim 1 above.

Regarding claim 10, which claims, "if the selected method foe calculating a region is unsuccessful when applied, the further step of sequentially selecting and applying other of the available methods until a selected method is successfully applied", Fitch(US 6,212,392) discloses, using quadtree representation of the area of interest and determining the location of wireless station by iterative comparison of the location of the location associated with the wireless station (ABSTRACT, all the Figs. and column 1, line 65 – column 2, line 24,column 7, line 36 – column 8, line 17, column 8, lines 42 – 64), as in claim 1 above.

4. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by Larsson, US Patent: US 6,282,427 B1 Aug. 28, 2001.

Regarding claim 1, which claims, "estimating a location of the mobile terminal", Larsson discloses, selecting location measurement units for determining the position of a mobile communication station (ABSTRACT, Figs. 1 - 15).

Further claimed feature, "applying one of a plurality of available methods to calculate a region around the estimated location in which the terminal could be located", Larson discloses, various techniques to determine the location of wireless mobile device (column 1, line 53 – column 2, line 23), calculating a modeled geographical representation of the current cell (column 9, lines 45 – 46), calculating a mass center (Fig. 6, block 61, column 4, lines 34 – 37), the center, whose location is defined by the coordinate system, represents the entire communication cell which includes the mobile unit located inside the coverage area (Fig. 3, column 4, lines 2 – 6).

Contact Information

Any inquiry concerning this communication from the examiner should be directed to Nimesh Patel at (571) 270-1228, normally reached on Mon-Thur. 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rafael Perez can be reached on (571) 272-7915.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR of Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nimesh Patel
Sep. 24, 2007.

Rafael Perez-Gutierrez
Supervisory Patent Examiner
Technology Center 2600
Art Unit 2617
9/27/07